

## ABSTRACT OF THE DISCLOSURE

A device for analyzing digital data formulated in accordance with a communication protocol has a data memory for storing digital data to be analyzed. A microcode memory stores a microcode that represents at least  
5 part of the communication protocol. A data register is loaded with a pre-determined number of bits from the data memory, and a microcode register is loaded with a pre-determined number of bits from the microcode memory. The content of the microcode register is used to analyze the content of the data register. The results of the analysis are stored in an output memory. An  
10 addressing unit for the data memory and another addressing unit for the microcode memory take into account the contents of the data and/or microcode registers in determining the corresponding addresses.

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